NHDES

The State of New Hampshire

Department of Environmental Services



Michael P. Nolin Commissioner

Mr. Paul Fredette City of Claremont Department of Public Works 8 Grandview Street Claremont, NH 03743 August 26, 2005 **Letter of Deficiency** DSP#05-025

RE: Dole Reservoir Dam #047.17, Claremont

Dear Mr. Fredette:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on June 2, 2005. During this visual inspection and/or file review, the following deficiencies were observed:

- 1. The horizontal cold joints located in the upstream concrete wall were in generally poor condition. There is also a missing portion of concrete measuring approximately 2 feet long by 3 inches high, located to the right of the gate house approximately 7 feet below the top of the concrete wall. The construction joint located at the left (as looking downstream) concrete face, at the jog in the wall, has opened 1-2 inches possibly allowing water to seep into the earth portion of the dam. In addition, there is a series of vertical joints that are showing signs of deterioration. There vertical joints appear to be spaced on approximately 10 foot centers which is equal to the concrete buttress spacing;
- 2. The earth crest of the dam is approximately 1 foot below the concrete crest of the dam at various locations across the entire length of the structure. According to the file this is a historic condition;
- 3. Although the downstream slope is well maintained with respect to keeping trees off the embankment, the grass was approximately 1.5 feet high preventing a proper inspection of the downstream slope;
- 4. The toe of the dam was wet as reported in previous inspections reports. However, recent rainfall likely contributed to the wetness observed; and
- 5. The Emergency Action Plan (EAP) was completed in 1998. The plan was last updated in August of 2004.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

October 1, 2005:

1. Update and test the EAP as necessary. This is an annual requirement. If you have questions relative to the current standing of your EAP please contact Bethann McCarthy, P.E., EAP Coordinator at 271-3406.

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January 1, 2006:

2. Retain the services of a professional engineer licensed in the State of New Hampshire to conduct either a dewatered or under water inspection of the entire upstream face of the dam;

August 1, 2006:

3. Submit the results of the inspection with recommendations to the DES Dam Bureau; and

May 1, 2007:

4. Obtain necessary permits and complete all recommended repairs to the upstream concrete face as well as other items identified by your consultant.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the previous page.

Sincerely,

Dam Safety Engineer

Attachments DB13, Sketch Illustrating Deficiencies cc: Gretchen R. Hamel, Legal Unit Administrator

Bethann McCarthy, P.E., EAP Coordinator

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